

TECHNICAL MEMORANDUM

TO: Doug Halley, Director of Health, Acton

FROM: Joe Shea, P.E. & Jack Troidl, P.E.

DATE: May 8, 2008

RE: Spencer/Tuttle/Flint & West Acton Center A Sewer System Extension
Feasibility Study and Conceptual Design Memo

Woodard and Curran (W&C) conducted a preliminary review of the feasibility to connecting the Spencer/Tuttle/Flint (STF), Area 10, and the West Acton Center A (WACA), Area 12, to the municipal sewer system. This report does not detail every required task, nor does it guarantee the commercial and residential properties may join the sewer collection system, but it identifies those issues that W&C sees as the key concerns and issues to be considered if the properties are to connect to the sewer collection system. This study entails the preliminary assessment into the technical, regulatory, and construction components required for sewerage these project areas.

Existing Conditions and Disposal Systems

W&C has reviewed the expected average daily flows (ADF) and peak daily flows (PDF) from the properties in both project areas. There are currently no sewer system connections within the study limits. The residential property wastewater flows are based on both Acton Water District records for winter water consumption and Title 5 flow rates. There are 120-130 residential properties in Area 10 and 55-65 residential properties in Area 12.

The STF sewershed is an existing residential neighborhood. The sewer flow from the STF area will have typical residential waste characteristics. The new collection system will be a tight sewer system preventing infiltration.

The waste characteristics of West Acton Center are expected to be typical of standard sanitary waste since the Town of Acton does not allow industrial or process waste, such as oil, solvent, or lubricants. Existing oil/water separators and floor drain systems at the school properties and gas stations are assumed to be properly maintained to separate out these products. The funeral home property on Massachusetts Avenue will require a pretreatment system prior to discharging to the municipal system.

A summary of the influent flows and loadings based upon this analysis are as follows:

Parameter	STF-Area 10	WAC A-Area 12	WAC A-Area 12
	Residential Properties	Commercial Properties	Residential Properties
Current ADF	20,668 gpd	17,081 gpd	
Historic PDF	NA	NA	
Estimated Future PDF Flow	62,004 gpd*	51,243 gpd*	
Average Biochemical Oxygen Demand (BOD)	300 mg/l**	300 mg/l**	300 mg/l**
Average Total Suspended Solids (TSS)	300 mg/l**	300 mg/l**	300 mg/l**

*Based on peaking factor of 3 (TR-16)

**Based upon typical value due to site specific information not being available.



Acton Wastewater Treatment Facility

The Acton Waste Water Treatment Facility (WWTF) is a 299,000 gallon per day (gpd) ADF Sequence Batch Reactor (SBR) facility, with a 500,000 gpd PDF permit limitation via Groundwater Discharge Permit GW#0-656-T#W003143. The specific discharge limitations of the permit are as follows:

- Biochemical Oxygen Demand (BOD), 5 Day, 20 C = 20 mg/l
- Total Suspended Solids (TSS)= 20 mg/l
- Oil and Grease = 15 mg/l
- Fecal Coliform = 200 org/100 ml
- Total Nitrate-Nitrogen = 10 mg/l
- Total Nitrogen (TKN + NO₃ + NO₂) = 10 mg/l
- Total Phosphorus = 0.2 mg/l average monthly limit with a 0.5 mg/l maximum daily limit.

To achieve these effluent characteristics the Acton WWTF contains the following process capabilities and equipment:

- Influent screening
- Grit removal
- SBRs and associated components
 - Chemical Feed Systems
 - Aeration System
 - Pre and Post -Equalization
- Filtration via cloth media
- Ultraviolet (UV) Disinfection
- Sludge handling and disposal
- Process Instrumentation and Controls via a SCADA system

Effluent from the Acton WWTF is pumped to one of six rapid infiltration basins (RIBs) located adjacent to the facility on Adams Street near High Street. Discharge from the facility is controlled via a flow distribution vault on the RIBs site where the effluent is routed to the "active" basin(s).

The Acton WWTF has been operating since February 2002. The facility services approximately 15% of the Town of Acton (the Town), which equates to approximately 380 active connections (678 total including not connected) and 1,092 sewer betterment unit equivalents (SBUE)'s (1,841 total including not connected). The flow for those 1,841 connections, based upon Title 5 estimates prepared during the design and permitting of the WWTF and sewer collection system, was 250,000 gpd. It is this 250,000 gpd ADF limit that defined the original extent of the sewer collection area and the Town was not permitted to add more connections due to the potential of allowing more than 250,000 gpd average flow into the facility. Based on discussions with the Massachusetts Department of Environmental Protection (MassDEP), the MassDEP has allowed actual flow data to be used for certain areas and the Contract 3 section was later added to the sewershed in 2002 and 2003. With the capacity of the WWTF being expanded to 299,000 gpd by the MassDEP in April 2004, 49,000 gpd ADF of additional unallocated capacity exists.

Since the WWTF started-up in February 2002 the actual flows have been less than the Title 5 estimated flows. In reality, now that approximately 1,092 SBUE's have been connected, it is clear that the Title 5 estimated flows are very conservative. The expected flows based upon the Town's database of users connected as of December 31, 2007 versus the actual ADF being received at the facility were recorded on a week-by-week basis since February 2002. As illustrated in the attached T5 Estimated Flows vs. Actual Flows figure, the expected flows, as based upon Title 5 estimates, are conservative and actual flows have been 25% to 40% lower. For example, in the month of October 2007 the estimated Title 5 flow was 210,000



gpd while the actual daily flow from ranged from 105,000 gpd to 115,000 gpd with an ADF of 109,500 gpd for the month.

Currently the influent loadings and effluent characteristics at the Acton WWTF are within the following ranges:

Parameter	Typical Influent Range	Average Influent Concentration	Permitted Effluent Concentration	Average Effluent Concentration
BOD (mg/l)	240 – 310	250	30 or below	Below 5
TSS (mg/l)	70 – 260	200	30 or below	Below 5
Ammonia Nitrogen (mg/l)	15 – 50	40	10 or below	Below 5
Phosphorus (mg/l)	5 – 10	7	0.5 or below	Below 0.2

The potential impacts of Area 10 and Area 12 loading on the Acton WWTF are not expected to be significant assuming the proper industrial pretreatment program (IPP) systems are in place for gas stations, funeral homes, etc. The facility is operating well within its design parameters and is consistently meeting permit limits for effluent quality. The additional BOD and TSS will not adversely affect the WWTFs ability to meet discharge permit limitations in the future.

Existing Nearby Infrastructure

Massachusetts Avenue Sewer – extends from the east up to approximately 400 feet on the east side of Prospect Street. This sewer gravity drains to the east to Pump Station #4.

Prospect Street Sewer – extends from the intersection with Prospect Street to the south. This gravity sewer drains to the south to Pump Station #3.

Pump Station #3 (Prospect Street) – is located on Prospect Street about 700 feet from Massachusetts Avenue. It collects sewage from Prospect Street and side streets and discharges to the Massachusetts Avenue Sewer where it is conveyed by gravity sewers to Pump Station #4 then on to the WWTF.

Pump Station #4 (Massachusetts Avenue) – is located on Massachusetts Avenue. This pump station receives flow from Pump Station #3 and Pump Station #5 (Charter Road) as well as gravity sewer along Massachusetts Avenue and nearby side streets. The pump stations pump along Main Street towards South Acton.

Several sources were used to identify potential constraints within the project area. A search of Massachusetts Department of Environmental Protection (MassDEP) 21E sites is attached. Sites impacted or adjacent to construction activities should be noted in future specifications. There are no habitat areas of rare and endangered species identified within the project areas (see attached figure: 2006 Priority Habitat and Estimated Habitat Natural Heritage & Endangered Species Program). The project areas are located within Zones 3 and 4 of Acton's Aquifer District which are the "aquifer protection area" and "areas outside of the aquifer protection area, recharge protection area, and well protection area respectively are shown on the attached Town of Acton Aquifer Protection map. The FEMA Flood Insurance Rate Maps (FIRMs) have been attached to be used in the design process for locating sewer pumping stations and gravity sewer manholes.



Future Wastewater Flows

The estimated future PDFs are approximately 62,000 gpd for STF and 51,000 gpd for WAC as shown in the table on Page 1. These flows are based on approximately 120 to 130 sewer betterment units (SBUs) for STF and 100 to 130 SBUs for WAC.

Alternatives Analysis

Four conveyance system alternatives were conceptually reviewed prior to forming a recommendation for the connection of the subject properties. Each alternative had both advantages and challenges, and each had factors that were more technically, economically, or socially beneficial. The alternatives were reviewed for factors making a best fit alternative. The screening criteria for reviewing alternatives include the following:

- Regulatory expectations concerning the needs areas – Project areas will need to align with the results of the CWRMP to ensure that needs areas are addressed.
- Capacity of Acton WWTF – Adequate capacity must be available at the WWTF in order to sewer new areas. Currently there is 49,000 gpd of unallocated capacity in the existing Groundwater Discharge Permit.
- Technical/Topography – Extending a sewer to service parcels based upon the existing topography for example may require an additional pump station or significantly increase costs and may not be advantageous.
- Sewer Betterment Unit Density – The SBU density allows the alternatives to be compared based on the historic betterment costs for the original connections and the relative estimated betterment costs to future users.
- Total Project Cost – Project areas and alternatives will be compared based on the cost to sewer the respective areas.
- Construction impacts to local businesses, traffic, or environment – West Acton Center is the primary area of focus for this criteria as several businesses could be affected by construction. The impact on the business community should be discussed.
- Ability to obtain easements or acquire land – Several locations exist where crossing a few properties may significantly reduce both construction costs and future operation and Maintenance (O&M) costs by reducing unnecessary infrastructure. This would be dependent on the Town being able purchasing the land or obtaining a permanent sewer easement.

A brief summary of each alternative for collection and conveyance systems is detailed below.

Alternative WAC-1: East of Railroad (Two Pump Stations)

This alternative is similar to the conceptual layout in the Sewer Extension Proposal from July 2007. A pumping station on West Road will collect sewer flows from all of West Acton Center east of the railroad except for Massachusetts Avenue. This pump station will discharge to a gravity sewer near the final pump station along Massachusetts Avenue. This is the conservative approach including a pumping station at the end of West Road which may be excluded as discussed in the alternative below. The portion of Massachusetts Avenue on the west side of the Brook will gravity feed to the pump station. This final pumping station will discharge to the Massachusetts Avenue Sewer east of Prospect Street. This will include one river crossing. It may be possible to cross the river using directional drilling or suspending the force main on the existing bridge. These methods will reduce impacts to the river compared to excavating which requires temporary dams across portions of the river. The portion of Massachusetts Avenue east of the river will consist of a low pressure sewer extending to the Massachusetts Avenue Sewer requiring approximately 17 grinder pumps. The sewers in this alternative are positioned within the roadway layout or on Town



property eliminating the need for any easements. The proposed layout is included in the attached Figure 1: Alternatives WAC-1 & WAC-2 West Acton Center "A".

The Gates and Douglas schools are not included in this analysis. The installation of a hollow pipe on Spruce Street should be considered which would allow future flow from the schools to flow directly to the pumping station proposed along Massachusetts Avenue, removing the need to repump flow from the pumping station on West Road.

Alternative WAC-2: East of Railroad (One Pump Station)

This alternative is similar to WAC-1 except that it does not include a pumping station at West Road.. With more accurate topographical data, it may be possible to obtain an easement, eliminating a pumping station and having gravity flow from West Road to Massachusetts Avenue. This direct approach removes nearly 2,000 linear feet of force main.

By reducing O&M costs, this alternative should be reviewed for feasibility if this area is selected as it may provide cost savings compared to Alternative WAC-1. The proposed layout is included in Figure 1.

Options for WAC-1 & WAC-2

An option for these alternatives exists along Massachusetts Avenue east of the Brook which will be served by low pressure sewers. If the Spencer/Tuttle/Flint area is sewered first, the this option would entail replacing a segment of the low pressure sewer by gravity sewers and connecting directly into the Flint Road gravity sewer. This would eliminate the need for several grinder pumps for the properties located between Flint Road and Prospect Street on Massachusetts Avenue.

Alternative STF-1: Pump Station at Flint Road

The three cul-de-sacs located off Tuttle Road and Lothrop Road, specifically, Wayside Lane, Tuttle Drive, and Torrington Lane may require low pressure sewers to tie into the gravity sewers. Low pressure systems can consist of a single town-owned system similar to Pumping Station #9 on Clover Hill Road or individually-owned units like High Street. These three low pressure sewers serving the cul-de-sacs will require approximately 13 grinder pumps and allow the STF area to be served by a single pump station. This alternative sites the pump station at the end of Flint Road. Lothrop Road will connect to this station via an easement across two properties. From the pumping station, sewage would be pumped directly to the Massachusetts Avenue collection system. The proposed layout is included in the attached Figure 2: Alternative STF-1 & STF-2 Spencer / Tuttle / Flint.

Alternative STF-2: Pump Station at Lothrop Road

The Town of Acton currently owns a parcel where this proposed pump station could be located. It will serve nearly the entire STF project area except for a section along Tuttle Road which will connect directly to Prospect Street, similar to STF-1. The pump station will pump directly to the existing gravity sewer along Massachusetts Avenue via Prospect Street. In order to connect the Flint Road cul-de-sac to Lothrop Road, an easement along two residential properties is necessary. The remaining three cul-de-sacs will be addressed similar to STF-1. The proposed layout is included in Figure 2.

Option for STF-1 & STF-2

An option for these alternatives is to route flow to the south along Central Street. Central Street would need to be sewered. This project area could connect Flint Road to Central Street with a gravity sewer along a large wetlands area. Easements along three properties are required for this alternative. A preliminary review of this option indicated that a force main would be required for nearly the entire length along Central



Street to connect into the existing collection system. Due to excessive potential costs, this option was not evaluated at this time.

SBU Evaluation

The original Middle Fort Pond Brook Project (Contract 1, 2 and 3) installed 66,317 linear feet (LF) of sewer (62,542 LF of gravity pipe and 775 LF of low pressure sewer) to service 1,383 SBUs. This is an SBU density of 20.8 SBUs/1000 LF of pipe.

The original Middle Fort Pond Brook Project (Contract 1, 2 and 3) resulted in 1,383 SBUs with an actual betterment cost of \$12,311.52 per SBU. This betterment cost excluded incremental cost required by the Town by-law for built-in future capacity. The incremental cost for future capacity was estimated at \$1,166,200 in September 2004. A portion of this incremental cost was recovered during the High Street Sewer Extension Project.

Zoning

West Acton Center – Village Residential (VR), West Acton Village (WAV), and Residence 2 (R-2) zoning districts are within the project area. (see attached Town of Acton Zoning Map). Eighteen parcels within this project area are located within the West Acton Historic District (see attached West Acton Historic District Map).

Spencer/Tuttle/Flint – The STF area lies nearly 100% within the R-2 zoning district with only two parcels in the Agriculture Recreation Conservation (ARC) district.

"Supersizing"

"Supersizing" is the informed term used in Acton to describe the design of a sewer collection system capable of serving the entire sewershed, not just the specific areas that are being connected into the collection system as part of a specific project. SBUs are assessed to projects, by determining breakdown of the project costs to be incurred by both proposed and eventual future users. Each alternative will include the supersizing design to provide the ultimate flow capacity. This will include both areas west of the railroad tracks and to the north such as Indian Village. The STF area does not have any properties that would convey sewer flow through the area and therefore will not include supersizing.

Both projects areas will require connection through the existing sewer system to connect to the Acton WWTF. The additional costs incurred by the previous projects for supersizing was \$1,166,000. Therefore, this project is required to pay for a portion of these costs where it has benefited from supersizing, approximately \$707,000. The following analysis estimates the supersizing cost per SBU based on the estimated SBUs in each project area and the combined project.

Supersizing Costs			
	WAC	STF	Combined Project
Estimated SBUs Low	100	120	220
Estimated SBUs High	130	130	260
Supersizing Cost	\$707,000	\$707,000	\$707,000
Supersizing-Low	\$2,719	\$2,719	\$2,719
Supersizing-High	\$2,678	\$3,856	\$3,214



Recommended Conceptual Collection and Conveyance System

The recommended scenario of alternatives includes STF-1 and WAC-1. There is currently sufficient capacity at the Acton WWTP to receive flow from both of these project areas. If these two project areas are combined into one construction project, the project will benefit from cost savings from an economy of scale as well as the reduction of grinder pumps along Massachusetts Avenue. This scenario is shown in the attached Figure 3: Recommended Alternatives WAC-1 & STF-1.

Opinion of Probable Costs

Probable costs were subdivided into direct and indirect construction costs. Direct costs include the actual construction work to build and install the new sewer system. Indirect costs include design engineering and other ancillary costs such as permitting, procurement, and administration. Assumptions for these costs are included below:

- The pumping station \$400,000 cost estimate is based upon bid costs for pumping stations in Devens, Groton and others and the station having future capacity for other properties in the sewershed. Conceptual costs should be revised once actual equipment is selected. For example, currently undetermined equipment which will impact cost include permanent auxiliary power generator, odor control pumps and manner of installation (public bid with state wages or private installation).
- 15% of total sewer length will be used for water main relocation and 5% for drainage pipe relocation. These lengths have been included in the estimates to account for the possibility of encountering these existing utilities. 10% of total sewer length was estimated for ledge removal based on previous sewer projects in Acton. No estimates have been carried for cable, telephone, or gas.

The Opinion of Probable Costs Summary is included below. The detailed Cost Comparison of Alternatives table is attached.

Opinion of Probable Costs Summary*				
Direct Costs	WAC-1		STF-1	
	Low	High	Low	High
Conceptual Construction Costs	\$3,382,000	\$3,865,000	\$3,769,000	\$4,307,000
Indirect Costs				
Design & Permitting (10% of Construction)	\$338,200	\$386,500	\$376,900	\$430,700
Procurement & Constr. Engineering (15%)	\$507,300	\$579,750	\$565,350	\$646,050
Administration (Police, Financing, Legal, etc. - 10%)	\$338,200	\$386,500	\$376,900	\$430,700
Indirect Contingency - 5%		\$193,250		\$215,350
Subtotal Indirect Costs	\$1,184,000	\$1,546,000	\$1,319,000	\$1,723,000
Total Project Conceptual Costs Low	\$4,566,000	\$5,411,000	\$5,088,000	\$6,030,000
Estimated SBUs	130	100	130	120
Conceptual Project Costs per SBU*	\$35,000	\$54,000	\$39,000	\$50,000

* ENR Construction Cost Index = 8,094 (February 2008)

** Conceptual project costs may not represent actual sewer betterment fees

Funding Options

Below is a brief summary of typical funding options and their relevance to the sewer extension to each area.



- State Revolving Fund (SRF) Loans
The STF project area focuses on public health and environmental protection which are key criteria for competitive Project Evaluation Form (PEF) scores. The SRF cycle for FY08 is closed and the FY09 PEF applications are due August 30, 2008. This project could be partially funded by applying for an SRF 2% interest loan with a 20 year pay back.
- Grants
Community Development Action Grant (CDAG), Public Works Economic Development (PWED) grants, and other Economic Development / Job Creation based funding opportunities should be aggressively pursued for the project's capital costs.
- Annual Budgeting Cycle
Assuming the Town of Acton FY08 Budget, which opened on July 1, 2007 did not include budget line items for \$11.4M of West Acton Sewer Extension, it may be difficult to reallocate the required magnitude of funds.
- Public / Private Partnership
Private property owners and businesses in West Acton Center with onsite disposal issues or a need to connect to the sewer should be considered as a potential funding source.
- Below Market Rate Funding
Other below market rate funding avenues could be evaluated for a funding opportunity.

Conceptual Schedule

The Conceptual Schedule for future phases of this project is shown below. A summary of the design process can be seen in the attached 'Sewer Extension – Typical Flowchart of Events'.

Conceptual Schedule	
Task	Month / Duration
Feasibility / Design Basis Report	Finish May 2008
Preliminary Engineering (Assuming Project Proceeds)	July - Sept. 2008
Funding Application(s) Submitted	August 2008
Special Town Meeting (if Necessary)	Fall 2008
Finalize Funding Options	January 2009
Approve Design & Construction Funds	ATM Spring 2009
Design & Permitting	July 2009 - October 2009
Funding Submittal (if appropriate)	October 2009
Advertise for Bid	Winter 2010
Start Construction	April 2010
Finish Construction	December 2010
Start Connections	January 2011



Recommendations:

There are several key tasks that the Town should complete for this project. These future tasks include:

- The Town of Acton to meet with state regulators to present the justification to expand the Acton sewer collection system without exceeding the permitted ADF or limiting any of the preexisting approved connections.
- The Town should submit the required SRF application to be eligible for funding under this program.
- Acton should initiate a Preliminary Engineering Contract.
- The Communities Interest in this project is critical to its success. Acton should continue public outreach to gain support for this project
- Opportunities for public /private partnerships should be explored which may supplement the need for working capital and ultimately reduce the per user cost of the project.

We appreciate the opportunity to support the Town with this draft design basis letter report and are available to assist with the next set of tasks moving forward. If you have any questions or comments, please do not hesitate to contact our office.



Figures / Attachments

In order of reference

T5 Estimated Flows Vs. Actual Flows: Title 5 Estimates Feb 2002 – Feb 2008

MassDEP 21E Search Results – August 27, 2007

2006 Priority Habitat and Estimated Habitat Areas

Aquifer Protection Map – Acton, Massachusetts

FEMA – 1988 Flood Insurance Rate maps

Figure 1: Conceptual Alternative Site Plan: WAC-1 & WAC-2

Figure 2: Conceptual Alternative Site Plan: STF-1 & STF-2

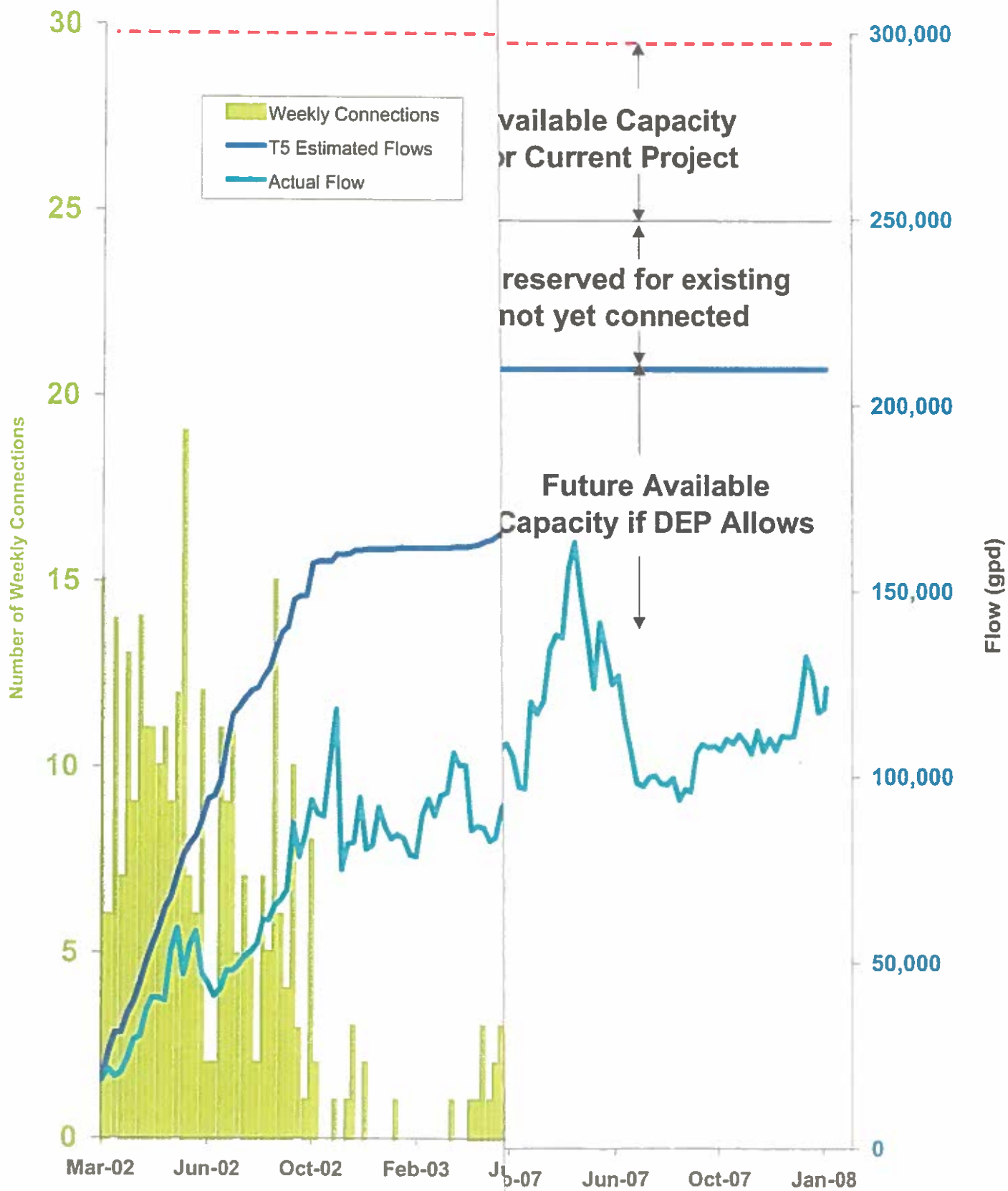
Town of Acton Zoning Map April 2006

West Acton Historic District Map

Figure 3: Recommended Alternatives WAC-1 & STF-1

Table 1: West Acton Sewer Extension Project – Cost Comparison Alternatives

Sewer Extension – Typical Flowchart of Events



DEP 21E SEARCH - AUGUST 27, 2007

RTN	Town	Release Address	Site Name/Location Aid	Reporting Category	Notification Date	Compliance Status	Date	Phase	RAO Class	Chemical Type
<u>2-0012850</u>	ACTON	68 CENTRAL ST	CONCORD OIL CO	72 HR	6/29/1999	TIER 2	10/23/2000	PHASE III		OIL
<u>2-0013132</u>	ACTON	68 CENTRAL ST	CONCORD OIL CO	72 HR	1/27/2000	RTN	10/23/2000	PHASE III		OHM
<u>2-0014428</u>	ACTON	68 CENTRAL ST	CONCORD OIL CO FACILITY	120 DY	8/5/2002	RAO	8/18/2005	PHASE II	A2	OIL
<u>2-0014429</u>	ACTON	68 CENTRAL ST	CONCORD OIL CO FACILITY	120 DY	8/5/2002	RTN	9/12/2003			OIL
<u>2-0014673</u>	ACTON	CENTRAL ST AND MAIN ST	AMTRAK-CONRAIL RAILWAY RELEASE	TWO HR	2/20/2003	RAO	4/29/2003		A1	OIL
<u>2-0012037</u>	ACTON	3 DURKEE RD	NORTH ACTON WWTP	TWO HR	12/19/1997	RAO	5/6/1998		A2	OIL
<u>2-0011113</u>	ACTON	MASSACHUSETTS AVE	PIPER ROAD	TWO HR	2/16/1996	RAO	4/6/1996		A1	OIL
<u>2-0013519</u>	ACTON	MASSACHUSETTS AVE	INTERSECTION OF RT 111 AND RT 27	120 DY	10/12/2000	URAM	10/20/2000			OHM
<u>2-0000836</u>	ACTON	408 MASSACHUSETTS AVE	SHELL STATION	NONE	5/9/1991	RAO	12/17/1997	PHASE II	A2	OIL
<u>2-0012157</u>	ACTON	408 MASSACHUSETTS AVE	FORMER SHELL STATION	TWO HR	3/23/1998	TIER 2	5/26/1999	PHASE III		OIL
<u>2-0011201</u>	ACTON	421 MASSACHUSETTS AVE	SUNOCO STATION	TWO HR	4/18/1996	RAO	5/23/1996		A1	OIL
<u>2-0010079</u>	ACTON	428 MASSACHUSETTS AVE	NEW ENGLAND TELEPHONE CENTRAL OFFICE	TWO HR	11/11/1993	RAO	10/21/1994		A2	OIL
<u>2-0000754</u>	ACTON	553 MASSACHUSETTS AVE	MOBIL SERVICE STATION	NONE	5/31/1990	RAO	5/13/2005		A2	OIL
<u>2-0011241</u>	ACTON	553 MASSACHUSETTS AVE	MOBIL STATION	72 HR	5/22/1996	RTN	11/10/1997			OIL
<u>2-0014590</u>	ACTON	75 SPRUCE ST	PAUL B GATES ELEMENTARY SCHOOL	TWO HR	12/12/2002	RAO	2/19/2003		A2	

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Arlington St" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Flint Rd" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Lohrop Rd" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Mallard Rd" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Prospect St" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Spencer Rd" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Torrington Ln" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Tuttle Dr" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "West Rd" | Sorted by: "Town, Address, RTN"

The search returned 0 results. Search Keywords >> Town: "ACTON" Address: "Wayside Ln" | Sorted by: "Town, Address, RTN"

New Search | Export to Excel | Definitions |

Site Information			
Site Number:	2-0013132	Category:	72 HR
Site Name:	CONCORD OIL CO	Release Type:	RAONR
Address:	68 CENTRAL ST	Current date:	10/23/2000
Town:	ACTON	Phase:	PHASE III
Zipcode:	01720-0000	RAO class:	
Official notification date:	1/27/2000	Location type:	COMMERCIAL
Initial status date:	1/27/2001	Source:	UST

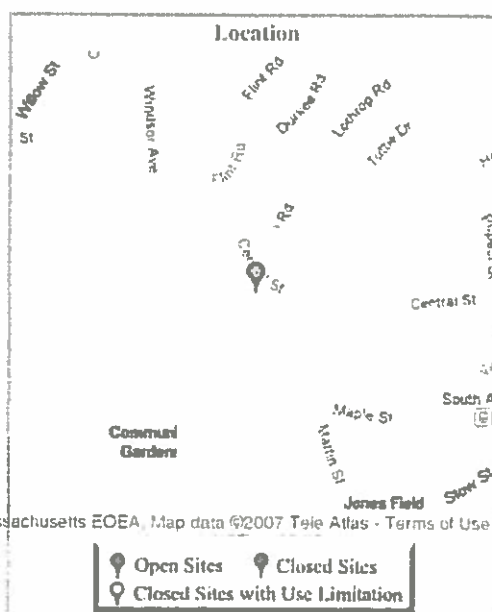
Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	T2EXT - Tier 2 Extension
Submittal Date:	10/31/2006
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	PHASII - Phase 2
Status:	REVRCD - Revised Statement or Transmittal Received
Submittal Date:	4/20/2005
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	PHASEI - Phase 1
Status:	ACTAUD - Level III-Comprehensive Audit
Submittal Date:	3/15/2002
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RAONR - RAO Not Required
Status:	RTCLSS - Linked to a Tier Classified Site
Submittal Date:	10/23/2000
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	3/31/2000
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	3/27/2000
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	1/27/2000
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
BENZENE, METHYL-	.64	MG/KG

LSPs	
LSP#	Name
5463	WOZMAK, RICHARD J

Linked RTNs	
Primary RTN	Secondary RTNs
2-0012850	2-0013132

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent
Totals						2	Hazard
316	95	101	20	100	0	N	N
							Permit/TierII Expiration Date
							10/23/2005



New Search | Export to Excel | Definitions |

Site Information			
Site Number:	2-0014428	Category:	120 DY
Site Name:	CONCORD OIL CO FACILITY	Release Type:	RAO
Address:	68 CENTRAL ST	Current date:	8/18/2005
Town:	ACTON	Phase:	PHASE II
Zipcode:		RAO class:	A2
Official notification date:	8/5/2002	Location type:	COMMERCIAL
Initial status date:	8/5/2003	Source:	AST

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	TSAUD - Level I - Technical Screen Audit
Submittal Date:	9/20/2005
RAO class:	A2
Activity & Use Limitation:	NONE
Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	LNKVTG - RTN Linked to TCLASS Via Tier Classification Submittal
Submittal Date:	9/12/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	PHASEI - Phase I
Status:	TSAUD - Level I - Technical Screen Audit
Submittal Date:	9/2/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RAM - Release Abatement Measure
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	8/12/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	8/9/2002
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	8/5/2002
RAO class:	
Activity & Use Limitation:	

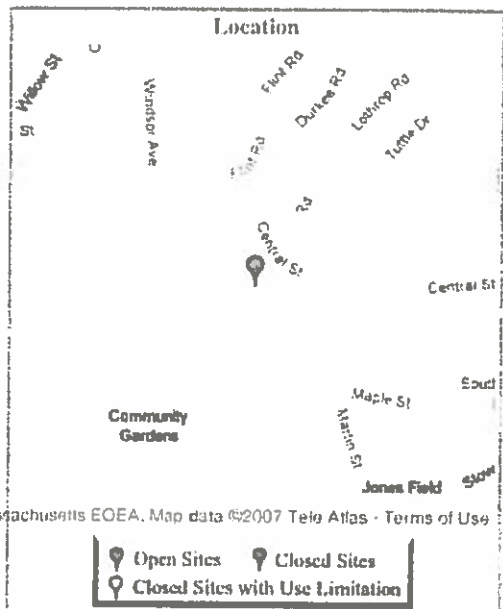
Chemicals		
Chemical	Amount	Units
FUEL OIL #2		

LSPs	
LSP#	Name
4872	TRAINER, KEVIN D
5463	WOZMAK, RICHARD J

Secondary RTNs	
2-0014429	

RAO Detail			
Class	Method	GW Category	Soil Category
A2	3	3	3

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent
Totals						2	Hazard
326	80	106	20	120	0	N	N
							Permit/TierII Expiration Date
							8/12/2008



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Site Information			
Site Number:	2-0014429	Category:	120 DY
Site Name:	CONCORD OIL CO FACILITY	Release Type:	RAONR
Address:	68 CENTRAL ST	Current date:	9/12/2003
Town:	ACTON	Phase:	
Zipcode:	01720-0000	RAO class:	
Official notification date:	8/5/2002	Location type:	COMMERCIAL
Initial status date:	8/5/2003	Source:	AST

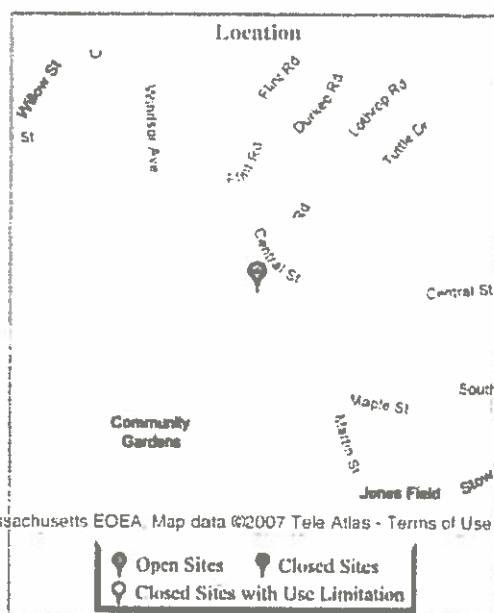
Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	LNKVTG - RTN Linked to TCLASS Via Tier Classification Submittal
Submittal Date:	9/12/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RAONR - RAO Not Required
Status:	RTCLSS - Linked to a Tier Classified Site
Submittal Date:	9/12/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RAM - Release Abatement Measure
Status:	PLANWR - Written Plan Received
Submittal Date:	10/16/2002
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	8/9/2002
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	8/5/2002
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
FUEL OIL #2		

LSPs	
LSP#	Name
5463	WOZMAK, RICHARD J

Linked RTNs	
Primary RTN	Secondary RTNs
2-0014428	2-0014429

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent
Totals						2	Hazard
326	80	106	20	120	0	N	N
							Permit/Tier II Expiration Date
							8/12/2008



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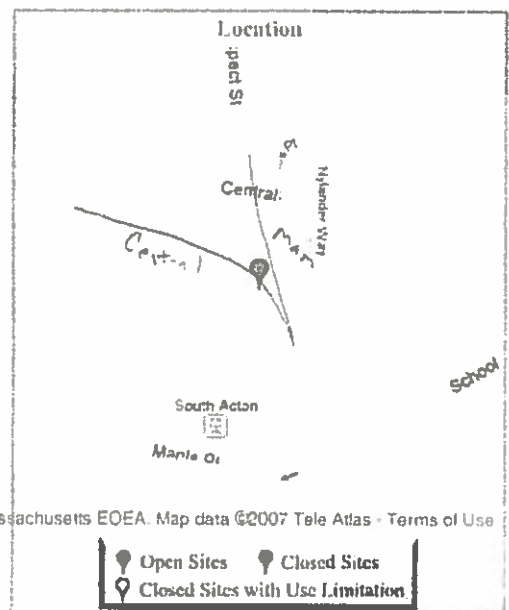
Site Information			
Site Number:	2-0014673	Category:	TWO HR
Site Name:	AMTRAK-CONRAIL RAILWAY RELEASE	Release Type:	RAO
Address:	CENTRAL ST AND MAIN ST	Current date:	4/29/2003
Town:	ACTON	Phase:	
Zipcode:	01720-0000	RAO class:	A1
Official notification date:	2/20/2003	Location type:	OTHER
Initial status date:	2/20/2004	Source:	VEHICLE

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	TSAUD - Level I - Technical Screen Audit
Submittal Date:	5/1/2003
RAO class:	A1
Activity & Use Limitation:	NONE
Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	4/29/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	APORAL - Oral Approval of Plan or Action
Submittal Date:	2/20/2003
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	2/20/2003
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
UNKNOWN CHEMICAL OF TYPE - OIL	40	GAL

LSPs	
LSP#	Name
7122	HENRY, KIM M

RAO Detail			
Class	Method	GW Category	Soil Category
A1	N	3	



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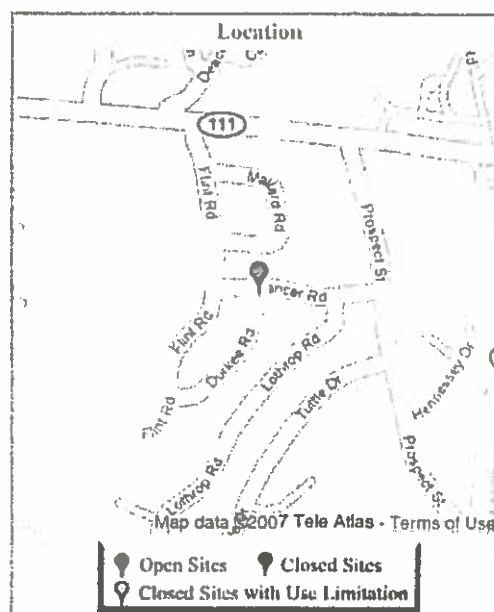
Site Information			
Site Number:	2-0012037	Category:	TWO HR
Site Name:	NORTH ACTON WWTP	Release Type:	RAO
Address:	3 DURKEE RD	Current date:	5/6/1998
Town:	ACTON	Phase:	
Zipcode:		RAO class:	A2
Official notification date:	12/19/1997	Location type:	COMMERCIAL
Initial status date:	12/19/1998	Source:	AST. PIPE

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	RAORCD - RAO Statement Received
Submittal Date:	5/6/1998
RAO class:	A2
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	2/17/1998
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	2/17/1998
RAO class:	
Activity & Use Limitation:	
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	12/19/1997
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
FUEL OIL #2	300	GAL

LSPs	
LSP#	Name
6508	DOHERTY, RICHARD E

RAO Detail			
Class	Method	GW Category	Soil Category
A2	3	2	2



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Site Information			
Site Number:	2-0011113	Category:	TWO HR
Site Name:	PIPER ROAD	Release Type:	RAO
Address:	MASSACHUSETTS AVE	Current date:	4/6/1996
Town:	ACTON	Phase:	
Zipcode:	01719-0000	RAO class:	A1
Official notification date:	2/16/1996	Location type:	ROADWAY
Initial status date:	2/16/1997	Source:	VEHICLE

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	RAORCD - RAO Statement Received
Submittal Date:	4/6/1996
RAO class:	A1
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	4/6/1996
RAO class:	
Activity & Use Limitation:	

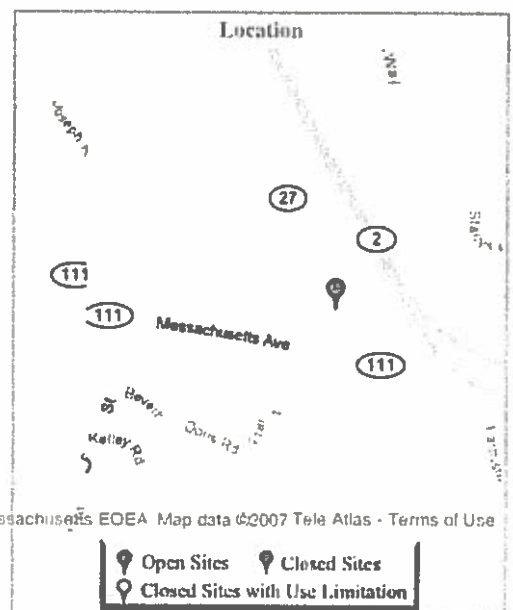
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	2/16/1996
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	APORAL - Oral Approval of Plan or Action
Submittal Date:	2/16/1996
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
GASOLINE	20	GAL
UNKNOWN CHEMICAL OF UNKNOWN TYPE	20	GAL

LSPs	
LSP#	Name
9997	IRWIN, J ANDREW

RAO Detail			
Class	Method	GW Category	Soil Category
A1	N		



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Site Information			
Site Number:	2-0013519	Category:	120 DY
Site Name:	INTERSECTION OF RT 111 AND RT 27	Release Type:	URAM
Address:	MASSACHUSETTS AVE	Current date:	10/20/2000
Town:	ACTON	Phase:	
Zipcode:	01720-0000	RAO class:	
Official notification date:	10/12/2000	Location type:	ROADWAY
Initial status date:	10/12/2001	Source:	UNKNOWN

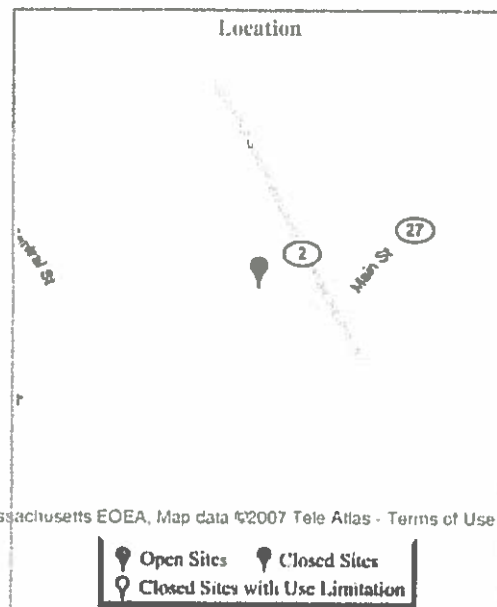
Response Action Information	
Response Action Type:	URAM - Utility-related Abatement Measure
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	1/8/2001
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	10/20/2000
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	10/12/2000
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
TOTAL PETROLEUM HYDROCARBONS (TPH)	320	PPM
NAPHTHALENE	4.58	PPM

LSPs	
LSP#	Name
3760	BLAKE, CRAIG E



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Site Information			
Site Number:	2-0000836	Category:	NONE
Site Name:	SHELL STATION	Release Type:	RAO
Address:	408 MASSACHUSETTS AVE	Current date:	12/17/1997
Town:	ACTON	Phase:	PHASE II
Zipcode:	01718	RAO class:	A2
Official notification date:	5/9/1991	Location type:	GASSTATION
Initial status date:	8/2/1997	Source:	

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	RAORCD - RAO Statement Received
Submittal Date:	12/17/1997
RAO class:	A2
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	TIERII - Tier 2 Classification
Submittal Date:	8/11/1997
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	PHASEI - Phase I
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RJP)
Submittal Date:	8/11/1997
RAO class:	
Activity & Use Limitation:	

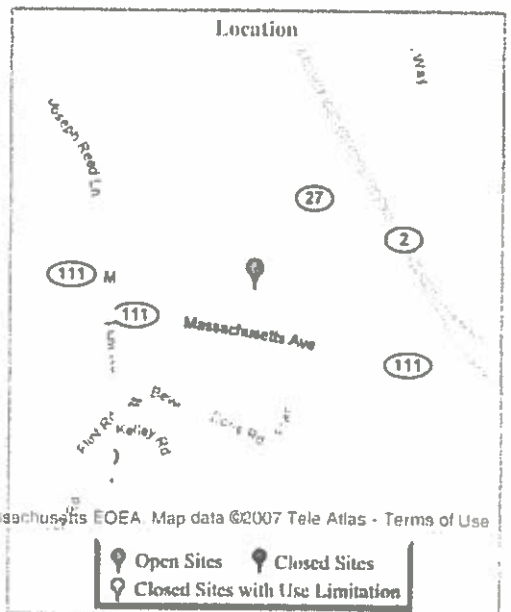
Response Action Information	
Response Action Type:	RAO-P - Partial RAO for this RTN
Status:	RAORCD - RAO Statement Received
Submittal Date:	8/11/1997
RAO class:	NC
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	TCTRNS - Tier Classified Transition Sites
Submittal Date:	5/9/1991
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
UNKNOWN CHEMICAL OF TYPE - OIL		

RAO Detail			
Class	Method	GW Category	Soil Category
NC	N		
A2	I	2	3

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent Hazard
Totals						2	
91	15	61	15	0	0	N	N
							Permit/TierII Expiration Date
							8/11/2002



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Site Information			
Site Number:	2-0012157	Category:	TWO HR
Site Name:	FORMER SHELL STATION	Release Type:	TIERII
Address:	408 MASSACHUSETTS AVE	Current date:	5/26/1999
Town:	ACTION	Phase:	PHASE III
Zipcode:		RAO class:	
Official notification date:	3/23/1998	Location type:	COMMERCIAL
Initial status date:	3/23/1999	Source:	PIPE, UST

Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	DNPRES - Permit or Tier 2 Extension Denied
Submittal Date:	6/20/2006
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	PHASII - Phase 2
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	6/4/2001
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RAM - Release Abatement Measure
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	7/19/1999
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	PHASEI - Phase 1
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	5/26/1999
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	5/23/1998
RAO class:	
Activity & Use Limitation:	

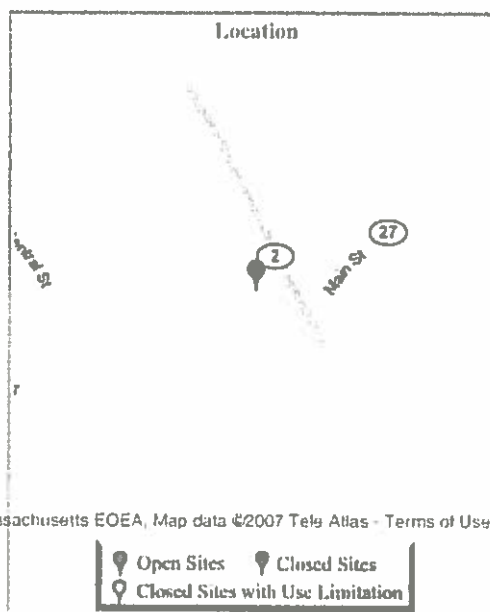
Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	5/22/1998
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	3/23/1998
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
GASOLINE	280000	PPB

LSP's	
LSP#	Name
4813	SHEEHAN, KEVIN C
1628	SIMMONS, THOMAS P

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent
Totals						2	Hazard
186	35	111	20	20	0	N	N
							5/26/2006



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Site Information			
Site Number:	2-0011201	Category:	TWO HR
Site Name:	SUNOCO STATION	Release Type:	RAO
Address:	421 MASSACHUSETTS AVE	Current date:	5/23/1996
Town:	ACTON	Phase:	
Zipcode:	01720-0000	RAO class:	A1
Official notification date:	4/18/1996	Location type:	COMMERCIAL
Initial status date:	4/18/1997	Source:	TANKER

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	5/23/1996
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	RAORCD - RAO Statement Received
Submittal Date:	5/23/1996
RAO class:	A1
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	4/18/1996
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	APORAL - Oral Approval of Plan or Action
Submittal Date:	4/18/1996
RAO class:	
Activity & Use Limitation:	

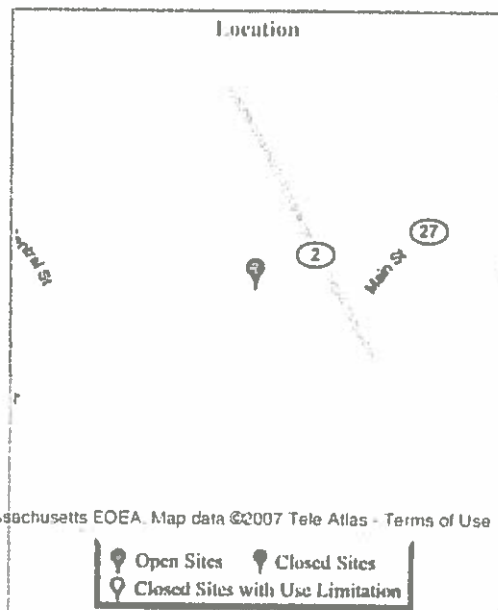
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	4/18/1996
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	4/18/1996
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
GASOLINE	40	GAL

LSPs	
LSP#	Name
7610	KAVANAUGH, KEVIN J

RAO Detail			
Class	Method	GW Category	Soil Category
A1	N		



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Site Information			
Site Number:	2-0010079	Category:	TWO IIR
Site Name:	NEW ENGLAND TELEPHONE CENTRAL OFFICE	Release Type:	RAO
Address:	428 MASSACHUSETTS AVE	Current date:	10/21/1994
Town:	ACTON	Phase:	
Zipcode:	01720	RAO class:	A2
Official notification date:	11/11/1993	Location type:	COMMERCIAL
Initial status date:	11/11/1994	Source:	UST

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	FEEREC - Fee Received - TFS Use Only
Submittal Date:	10/24/1994
RAO class:	A2
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	10/21/1994
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	1/5/1994
RAO class:	
Activity & Use Limitation:	

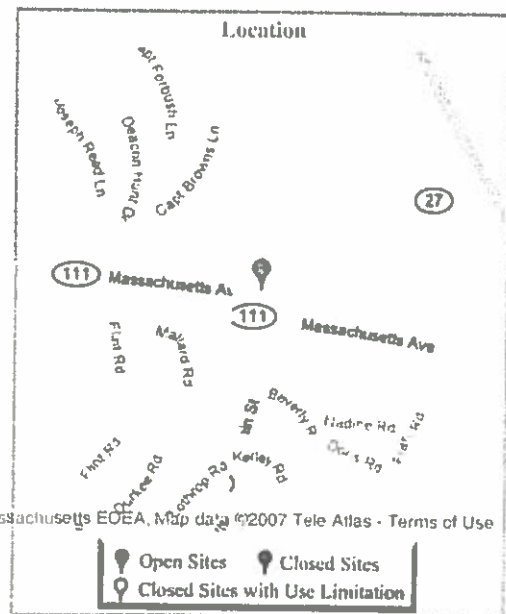
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	11/11/1993
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	11/11/1993
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
DIESEL FUEL	2500	PPM
FUEL OIL #2		

LSPs	
LSP#	Name
8316	WORTHINGTON, MARK A

RAO Detail			
Class	Method	GW Category	Soil Category
A2	1	2	1



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Site Information			
Site Number:	2-0000754	Category:	NONE
Site Name:	MOBIL SERVICE STATION	Release Type:	RAO
Address:	553 MASSACHUSETTS AVE	Current date:	5/13/2005
Town:	ACTON	Phase:	
Zipcode:		RAO class:	A2
Official notification date:	5/31/1990	Location type:	COMMERCIAL GASSTATION
Initial status date:	6/24/1995	Source:	UST

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	TSAUD - Level I - Technical Screen Audit
Submittal Date:	10/21/2005
RAO class:	A2
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	PHASEV - Phase 5
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	5/13/2005
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	PHSIII - Phase 3
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	9/23/2004
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RAM - Release Abatement Measure
Status:	TSAUD - Level I - Technical Screen Audit
Submittal Date:	4/8/2003
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	PHASIV - Phase 4
Status:	PLANWR - Written Plan Received
Submittal Date:	3/31/2003
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	PHASII - Phase 2
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	1/23/2002
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	PEREXT - Permit Extension Received
Submittal Date:	7/13/2001
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RAM - Release Abatement Measure
Status:	PLANWR - Written Plan Received
Submittal Date:	4/4/1994
RAO class:	

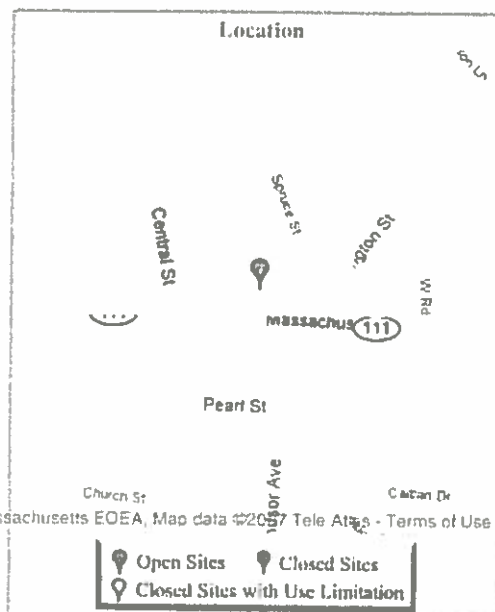
Chemicals		
Chemical	Amount	Units
GASOLINE		

LSPs	
LSP#	Name
4003	SOKOL, STEFAN C
6406	SWANSON, WILLIAM R

Secondary RTNs	
2-0011241	

RAO Detail			
Class	Method	GW Category	Soil Category
A2	3	3	3

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent
Totals						2	Hazard
-32	15	3	0	0	-	N	N
						50	
							Permit/TierII
							Expiration Date
							4/1/2003



Activity & Use Limitation:

Response Action Information

Response Action Type: REL - Potential Release or Threat of Release

Status: TCTRNS - Tier Classified Transition Sites

Submittal Date: 5/31/1990

RAO class:

Activity & Use Limitation:

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Site Information			
Site Number:	2-0011241	Category:	72 HR
Site Name:	MOBIL STATION	Release Type:	RAONR
Address:	553 MASSACHUSETTS AVE	Current date:	11/10/1997
Town:	ACTON	Phase:	
Zipcode:	01720-0000	RAO class:	
Official notification date:	5/22/1996	Location type:	COMMERCIAL
Initial status date:	5/22/1997	Source:	UNKNOWN

Response Action Information	
Response Action Type:	RAONR - RAO Not Required
Status:	RTCLSS - Linked to a Tier Classified Site
Submittal Date:	11/10/1997
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	TCLASS - Tier Classification
Status:	LNKVTG - RTN Linked to TCLASS Via Tier Classification Submittal
Submittal Date:	11/10/1997
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	CSRCVD - Completion Statement Received (includes Ph 3 RIP)
Submittal Date:	11/10/1996
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	7/22/1996
RAO class:	
Activity & Use Limitation:	

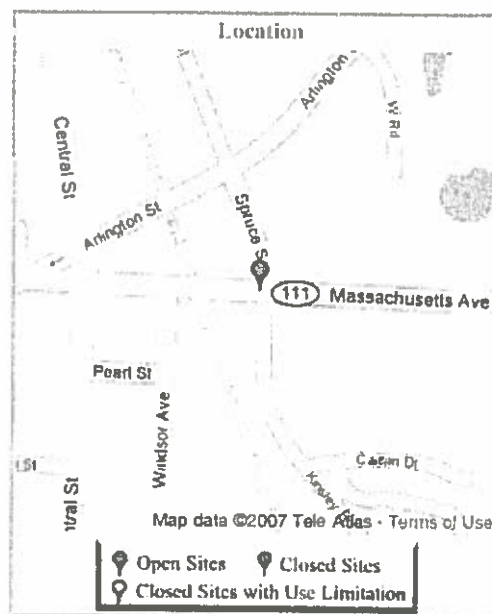
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	5/22/1996
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
GASOLINE	12	INCH

LSPs	
LSP#	Name
7610	KAVANAUGH, KEVIN J

Linked RTNs	
Primary RTN	Secondary RTNs
2-0000754	2-0011241

Tier Classification Detail							
NRS	II	III	IV	V	VI	Zone	Imminent Permit/TierII
Totals						2	Hazard Expiration Date
-32	15.3	0	0			N	4/1/2003
						50	



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Site Information			
Site Number:	2-0014590	Category:	TWO IIR
Site Name:	PAUL B GATES ELEMENTARY SCHOOL	Release Type:	RAO
Address:	75 SPRUCE ST	Current date:	2/19/2003
Town:	ACTON	Phase:	
Zipcode:	01720-2497	RAO class:	A2
Official notification date:	12/12/2002	Location type:	SCHOOL
Initial status date:	12/12/2003	Source:	OTIIR

Response Action Information	
Response Action Type:	RAO - Response Action Outcome - RAO
Status:	RAORCD - RAO Statement Received
Submittal Date:	2/19/2003
RAO class:	A2
Activity & Use Limitation:	NONE

Response Action Information	
Response Action Type:	RNF - Release Notification Form Received
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	2/10/2003
RAO class:	
Activity & Use Limitation:	

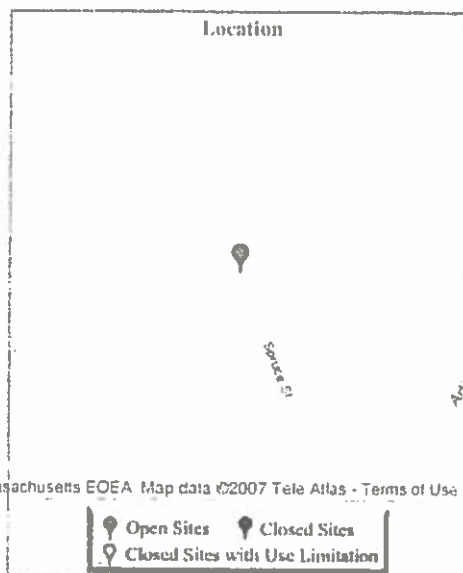
Response Action Information	
Response Action Type:	REL - Potential Release or Threat of Release
Status:	REPORT - Reportable Release or Threat of Release
Submittal Date:	12/12/2002
RAO class:	
Activity & Use Limitation:	

Response Action Information	
Response Action Type:	IRA - Immediate Response Action
Status:	APORAL - Oral Approval of Plan or Action
Submittal Date:	12/12/2002
RAO class:	
Activity & Use Limitation:	

Chemicals		
Chemical	Amount	Units
UNKNOWN CHEMICAL OF UNKNOWN TYPE	15	GAL

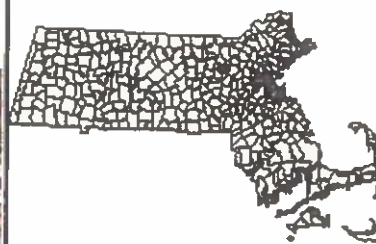
LSP's	
LSP#	Name
1497	SIMPSON, DANA A

RAO Detail			
Class	Method	GW Category	Soil Category
A2	1	2	1



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2006 Priority Habitat and Estimated Habitat Natural Heritage & Endangered Species Program



Legend

Land Feature Names

EOT-OTP Roads Names

EOT-OTP Roads

Limited Access Highway

Multi-lane Hwy, Not Limited Access

Other Numbered Hwy

Place Names

Surrounding States Labels

Surrounding States

NHESP 2006 MA Estimated Habitats of Rare Wildlife

NHESP 2006 MA Priority Habitats of Rare Species

Color Orthos 2001

Color Orthos Islands 2003